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THE METAPHYSICAL STATUS OF SENSATIONS

“ When the eye and the appropriate object meet together and give birth to whiteness and the sensation of white, which could not have been given by either of them going to any other, then, while the sight is flowing from the eye, whiteness proceeds from the object which combines in producing the color; and so the eye is fulfilled with sight, and sees, and becomes, not sight, but a seeing eye; and the object which combines in forming the color is fulfilled with whiteness, and becomes not whiteness but white, whether wood or stone or whatever the object may be which happens to be colored white. And this is true of all sensations, hard, warm, and the like, which are similarly to be regarded, as I was saying before, not as having any absolute existence, but as being all of them generated by motion in their intercourse with one another, according to their kinds.” (Plato: *Theætetus*, pp. 156–157, Jowett’s translation.)

IF one ever needs excuse for quoting Plato, it would do in this case to plead that the doctrine contained in the passage is brilliant, thorough, and sound. The history of philosophy, in its meandering course, has brought forth no improvement upon the statement put into the mouth of Socrates by his great pupil. One need not agree with all the positions of Plato in even the dialogue from which the above passage was taken in order to enter fully into the proffered analysis of the metaphysical status of sensations. Socrates is making no pretense of originating a new doctrine: he is expounding that of Protagoras. Indeed he seems to accept as true everything which Protagoras says about sensation, except that it is knowledge. This doctrine of sensation, however sound, becomes, when coupled with the supposition that sensations are cognitive of the world beyond, involved in grave difficulties; and the followers of Protagoras through the centuries are responsible for all the copy-theories of sensation which have so led philosophy astray. But in this present paper there will be no occasion to discuss knowledge; rather the effort will be made simply to comment upon and compare with less satisfactory modern analyses that doctrine of the nature of sensations which Protagoras formulated, Socrates accepted, and Plato so beautifully put into words. And if the points commented upon seem trivial and commonplace, the writer might reply that he wishes they were so well understood and so widely taken for granted that

further restatement would be unnecessary. As so often is the case, metaphysics is needed only because there is so much bad metaphysics.

Sensation is a natural event which takes place in the world under certain ascertainable conditions. We have good reason to believe that objects existed long before they were perceived by even the first organisms endowed with organs sensitive to stimuli from those objects; and we have good reason to believe that a catastrophic destruction of all organisms would leave those objects in undisturbed existence. Sensation is an event which happens in its setting, but does not produce nor control that setting. The setting consists, for the purposes of analysis, of three significant elements or aspects. First, there is the object such as a stone, a cloud, a bon-bon, or an open fire on a wintry day. Secondly, there is the animal organism, with its end-organs of various sorts, end-organs which might under different circumstances have become other than they are but happen to be as they are, end-organs such as the eye, the ear, and the various special structures in the skin. Thirdly, there is the medium of communication between object and end-organ, the physical contact and pressure of the stone against the organ of touch, the vibrating ether between the cloud and the eye, the physical contact and chemical change which ensues when the bon-bon is dissolved upon the tongue, or the air-waves between the fire and the organ of heat. We know more about the structure of the end-organs than did Plato, and also about the mediums by which objects affect the end-organs. But Socrates did not need to know the details of all the species of processes involved in sense-experience, in order to formulate correctly the definition of the subsuming genus; and he allows adequately for the growth of scientific knowledge when he says that the various kinds of sensations are "generated by motion in their intercourse with one another according to their kinds." Perhaps no loss of accuracy in discussing sensations will result if vision is selected for special treatment; for similar things could be said about all other kinds of sensations.

The absence of one or more of the three elements of the setting in which sensations occur will of course make sensations impossible.¹ A dazzling sun may shine with unparalleled splendor for countless ages; but there will be nothing seen unless the electro-magnetic vibrations starting out from it chance to strike upon the sensitive retina of some physiological organism. A strong eye, well con-

¹ That sensations may arise under other conditions can not of course be dogmatically denied. Yet the only sensations of which we know anything are generated in the way here discussed; and we have no reason for believing in any others.

structed in all its parts and properly related to a healthy organism, may search the uttermost reaches of space; but there will be nothing seen unless there is some object within the radius of its range and some unimpeded physical force to stimulate the eye. In a world where no interactions took place between the various things of which that world might be composed, there would be no sensations; and even in a world where the requisite interactions take place, there must yet be properly formed end-organs before those influences produce sensations. If the nature of the object or the nature of the medium of communication were changed, it might well be that the end-organ would have to go through compensating changes before sensations would once more occur; and any change in an end-organ beyond a very slight one would probably forever put a stop to sensations through it, unless the other elements of the setting were altered or those elements chanced to have other activities formerly unconnected with sensation-processes and yet suited thereto in connection with the altered end-organ.

The part of Plato's doctrine of sensations which is important for metaphysics and logic remains to be noted. There is no suggestion in Plato that sensations are a new sort of entity which half conceals and half discloses the world which the organism faces—not that he specifically denies that such is the case, but that such a consideration is irrelevant to the subject-matter under examination. The followers of Protagoras who regarded sensations as knowledge might well become involved in such a distressing problem. But not Plato. For him sensations are not cognitive, and there is no need of determining whether the sensation is a "copy" of anything else. A sensation like an explosion of gunpowder is an event, with natural causes and effects; but it no more mirrors the conditions of its occurrence than an explosion mirrors the chemicals and the spark which set those chemicals off. The sensation-process is a complex process, in which, by virtue of the total situation established by object, medium, and end-organ, the object and the end-organ are temporarily of a different nature than before the situation was established. That is, the eye becomes a seeing eye, and the object becomes a white object. There would be no objection to calling the white object or the white alone by such terms as *idea*, *impression*, or *psychic state*, provided that no improper inferences were drawn from that term. Neither the white object nor the white is any of those things, however, if by those terms is meant a separate and distinct existence. The object seen is the object which was really there before it was seen, even though it was not then white and did not stand in the situation in which it later came to stand. There seems to be no warrant for

calling objects white unless they are seen; but the white object seen is the same object which the eye for some reason singles out from the total environment. As Plato puts it, the eye becomes a seeing eye and the object becomes a white object; and Plato would correctly add that no further entity or existence was involved in the process. The same eye may be the organ of many different sensations in which the same object is seen in many different shapes and colors; for the same object seen may be seen by the same eye in many different positions and under many different conditions. And since the nature of a sensation depends upon the total situation of object, medium, and end-organ, the nature of successive sensations will vary. No sensation "grasps" the whole nature of the object. But what is seen is real in so far forth under the circumstances, no matter whether it would be unreal under other circumstances.²

There is a certain sense in which men stand in the egocentric predicament, *viz.*, that they can not have sensations of objects with which they are not brought in contact according to the conditions of object, medium, and end-organ. But since knowledge is not a matter of sensations, taken singly or in complexes, there is no egocentric predicament about the cognitive experience. Also since in sensation-processes they come into contact with the natural, the objective, the real world, there is no egocentric predicament about the metaphysical status of sensations. The world as sensed is *ipso facto* a different world than the world as not sensed, just as the end-organ in action is different than the end-organ not in action. But it is important to determine what the difference is from an examination of what goes on, and not to settle such questions by a definition of what a metaphysical difference might be. Certainly as we observe the facts, there is no problem of the existence of an external world. There may well be problems as to the nature and the qualities of the seen objects in some of their unseen relationships which are not directly observed. We may well ask such questions as the following:

² Lest there be misunderstanding as to the meaning of *real* in the above paragraph, it might be noted that the term refers simply to what is "there," *i.e.*, to what exists at any moment. No supposition of always and forever enduring is implied. Recently Mr. C. A. Strong wrote: "If we say that data are real, we are forced to say that physical things are not real, while, if we say that physical things are real—as I think we must—we are forced to conclude that data, as such, are not real." (*Essays in Critical Realism*, p. 225.) But the bewildering dilemma clears up when Mr. Strong explains at the end of his paragraph, in a phrase which seems to have been added at the last moment to meet the objections of one of his co-authors, that *real* means "continuously existent." Such usage, if unusual, has ample historical precedent, but is not the meaning of the word in this paper.

What color would the object be in a mist? What would the object look like under a microscope? Could we see the object through a certain intervening substance? Could we see the object from a certain distance? What is the chemical constitution of the object? At what rate do the atoms of which it is composed vibrate? *Etc. etc.* But we could not legitimately ask whether there is "really" an object there; for it is given as "there." We could not legitimately ask whether it is "really" white; for if we know what the question means, we will know that in one sense it is white and in another sense it is not, and if the question means neither of these things, there is no such thing as being "really" white. We never have the task of getting from the realm of "psychic states" into the world of physical existences, but simply the task of getting from the world as it is partially perceived to the world as it is more largely inferred to be.³ The problem of knowledge is the practical one of how to go from incomplete information to more complete understanding. That problem can not be said to involve a dualism, in any of the ordinary or historic senses of that word; it involves only a dualism between the less and the more, both of which are contained in the same total system of reality. We do not infer what things are like on the basis of "psychic states" or "ideas wholly in the mind"; but we infer what things are like in their entirety from those of their qualities and relations which we do directly perceive. Objects do not cease to be objects in becoming seen any more than they cease to be objects in becoming eaten. That, I take it, is what Plato meant when he said that the object "becomes not whiteness but white." At least, whether Plato meant that or not, it can be said that in vision objects do not themselves become, and do not produce as a sort of by-product, what are usually called "psychic states," but become seen objects. And sensation presents us with no difficulty except that of discovering from incomplete presentation of the world we confront certain other

³ Two statements in the recent *Essays in Critical Realism* deserve comment here. Mr. Strong said: "The world as sense-perception presents it and the world as it is by no means coincide" (227). In one sense this is quite true; for the object seen is not at all times and apart from perception exactly what it is seen to be in vision. But in another sense the statement is false; for the world as sense-perception presents it is a part of the world as it is, though a small part. Mr. A. K. Rogers said in the same volume: "The world of science is distinctly not the world of immediate perception" (151). This is true of physics and astronomy to a large extent; for those sciences are interested in certain aspects of the world not presented in sensations. But it is not true of optics, acoustics, and such sciences. And it is entirely false if it is meant that there is any metaphysical difference between the world of science and the world of immediate perception.

as yet unobserved and perhaps permanently unobservable items in which we may happen to be interested. Metaphysics and epistemology can not properly be concerned with an alleged hiatus between two different sorts of existences, but with the distinction between and the differences in the things as seen and the same things as not seen, all of which exist in one continuous realm of being. Men come into limited contact with things through sensations and need to know lots of facts about their world which can only be discovered indirectly, on the basis of analogy, of inference, of hypothesis and experimentation. In other words, in addition to the knowledge which may be directly derived from such sensations as those of vision, we must have recourse to such well-guided reasonings as are furnished to us by such sciences as optics, physics, and chemistry.

II

The view of sensations thus outlined, whether or not it is to be found in Plato, is a realism or naturalism. But it differs from, though it has certain sympathies with, two commonly accepted theories, by contrast with which its significance would perhaps be more obvious. The first of these is behaviorism; the second is a dualistic realism represented by the modern tradition which comes from Locke and Kant, and which has recently been restated, in an effort to minimize the dualism, by the "critical realists." Though no effort will here be made to review those alternative views of sensation in any detail, the contrasts may be helpful.⁴

The position defended in this paper is in one sense of the word itself a behaviorism. We do not get sensations by passively waiting like the wax for the imprint of the seal. We would not call the images in a mirror sensations (that is, the sensations possessed by the mirror). An eye, however complete in all its parts, would probably not see objects, if it were detached from the organism of which it is an integral part. Unless there is reaction by as well as action upon the eye, vision does not occur. In other words, the eye must be the end-organ of some physiological unit of response, since it is probably safe to affirm that the eye taken by itself could not respond at all. Sensations, as the term has been used in this paper, are certain qualities such as blue and red, sweet and sour, hot and cold; but these qualities appear only in connection with a certain process

⁴A paper to follow this paper will examine the claim of the "critical realists" to have overcome the difficulties of the traditional epistemological dualism through their new doctrine of the datum as a logical essence. But for any such examination, a preliminary constructive statement seemed advisable of the point of view from which criticism would be brought.

which involves object, medium, and end-organ, and the activity of all those elements is jointly necessary. None of the qualities which are revealed by the process can be taken to invalidate the process, to throw doubt upon the reality of the fact that there has been such a process, to deny the reality of the conditions under which the process takes place. The description of the sensation-processes from the standpoint of the organism is what behaviorism has to tell us about sensation, and is accepted as valid and convincing by the writer of this paper.

None the less the standpoint of this paper is opposed to much contemporary behaviorism. The chief reason why behaviorism has not been even more widely and unanimously adopted in America than has been the case, and why the present writer finds it partly unacceptable, is that behaviorists have often denied the reality of obvious facts in the interests of the simplicity of their theories. When behaviorism arose shortly after 1890, largely as the result of the impetus given to psychological studies by William James, many philosophers were found describing the mind as a mere series of the sense-qualities which the processes of sensation bring into existence. It was quite natural therefore that a reaction from this incomplete description should take place, and that not simply the mind should be described in terms of the processes of sensation and the like, but the very existence of the sense-qualities should be neglected and in more extreme cases denied.⁵ At least, whether natural or not, such did take place. Preoccupied with an analysis of the actions of the nervous system, behaviorists had nothing to say about the qualities which the objects have in sensation. Called to account for this neglect, they feared that they were being summoned once more to study merely these qualities; and knowing to their own satisfaction that what they had discovered about the mind could never be stated in any mere list of such qualities, however complete, they asserted that the mind was activity, not quality at all. Furthermore, fearing a renewal of the epistemological futilities of which modern philosophy has given such frequent instances, they were prompted to deny the existence of "psychic states"; and since their adversaries assured them that the qualities revealed in sensation were "psychic states," they denied the very existence of the qualities altogether.

⁵ Mr. J. B. Watson only harms his own cause by his impossible identification of colors or other qualities of an object with a physiological process. *E.g.*, he recently quoted Dunlap with approval to the effect that "the so-called visual image is only an associated eye muscle strain (muscular 'sensation')." Cf. *The Dial*, Vol. LXXII., No. 1, p. 101, Jan., 1922. This is only a new form of the traditional materialistic fallacy.

To a certain extent the dispute has been merely verbal. If any one chooses to call the sense-qualities which appear in the course of the sensation-processes by the name of *mind*, there should be no objection—though care would have to be exercised to keep from various of the traditional errors which have accompanied that terminological practise during the last three centuries. Similarly if any one chooses to call the activities of the organism in sensation and the like by the name of *mind*, again there should be no objection. Though we can discover no reason why certain qualities should appear exclusively in connection with certain processes, yet such seems to be the fact. If either thing were singled out as that in terms of which alone mind is to be defined, the behaviorist has chosen the better element. For the sense-quality is the quality of the object: it is neither within the body nor within the confines of a mental realm distinguished from the physical world. And the error of the behaviorist is decidedly less disastrous than that of the upholders of the "psychic states"; for their error is the enthusiastic one of youth in overstating a new discovery, and involves no distortion of reality in so far as their positive, if not their negative, arguments are concerned.

Yet the issue has often gone further than a verbal dispute. The behaviorists, assured from their own studies that the thing they called mind was a certain set of activities of the physiological organism, and assured by a long and important tradition that sense-qualities did not exist outside the mind, had to deny that there were any sense-qualities at all. Mind for them was not a receptacle: it was not a place in which anything could be located. Of course their denial of sense-qualities was an error. But the trap which led them into the error was their acceptance of the supposition that sense-qualities are "psychic states." If they erred, it was due to their trusting the word of those philosophers who, in Humian fashion, treated the mind as a series of states of consciousness and denied the objectivity of sense-qualities. They are not to be much reproached for their error; for the premise which they furnished from their own experimental work was true, whereas that supplied by their fellow-philosophers, if true at all, was true only in a limited and unusual sense of the words. Those who are worried over the materialistic tendency of behaviorism have only themselves to blame; the error of behaviorism can be corrected only upon the supposition of the objectivity of sense-qualities.

The time has come to locate the error of behaviorism more fairly. The denial of the existence of facts which every man perceives every day of his life is preposterous. The existence of sense-qualities

does not have to be proved, because it is given as an immediate fact of experience. Similarly the existence of the activities of the nervous system does not need to be proved any further than behaviorists have done. What we need is to learn what various people mean by terms such as mind, and then state the well-proved conclusions in terms the meaning of which may be clear to all. No one probably would question that object, medium, and end-organ are all essential to that sort of activity of the physiological organism which we may then agree to call the process of sensation. Since mind is usually contrasted with object, we would do better not to call by the name of mind the sense-quality which the object assumes during and as a result of the process of sensation; for the sense-quality is a quality of the object. Avoiding thus the term mind for the mere existence of sense-qualities, we should recognize none the less their existence. That sense-qualities are perceived and living processes are carried on by the same organisms should not blind us to both sets of facts. The behaviorists have neglected or even denied the former; their opponents have neglected and nearly always denied the latter, and then have drawn impossible conclusions from what they have mistakenly denied as well as from what they have truly affirmed. It is theoretically possible that some other cause than the sensation-process might give rise to sense-qualities, in which case no one surely would wish to speak of a mind as present. But it is actually the case that there are a number of biological and physiological processes which seem to go on without any sensations, any consciousness, any prevision of the future; and yet even in these processes we feel that we have something akin to what we mean by mind. Thus, though it is not the purpose of this paper to define mind, it can at least be said that the term seems to be best used for those of the living processes which have assumed a certain quality and a certain form.⁶

⁶ A word of warning to the critics of a revised behaviorism may be timely here. Those who treat the mind as a matter of activity or relationships are usually called materialists. But that characterization is not always correct. It would be correct if the relations were altogether spatial, if the activity were that of gross motion such as waving arms and legs about in space. But usually the relationships and activity referred to are ideal, they can be described only in terms of meaning, anticipation of the future, inference, judgment. Mr. Sellars remarked that knowledge is not "a real relation between the knower and the known." (*Essays in Critical Realism*, p. 206.) I have not been able to puzzle out what he is intending to say. But his words would seem to mean either that knowledge did not exist or that the only *real relations* were spatial and material. I do not wish to be unfair. Yet I can not help but think that he tends to equate reality and matter, and to be by implication more materialistic than many behaviorists.

III

The opponents of behaviorism have almost unanimously treated sensations as "psychic states" existing in the mind and having no objective status. In fact this treatment has become so customary that it is often taken as an incontrovertible axiom which needs no proof. Each consciousness is then cut off from the rest of the world by an absolute break. And the world of nature, the objective world, is not known directly.⁷

The proofs for the subjectivity of sensations are mostly indirect, *i.e.*, they consist in showing that sensations could not be objective. There are three such proofs which have frequently been offered from Locke to the "critical realists," and there is an implicit principle or metaphysical axiom usually assumed. These must be reviewed before the thesis of this paper can be taken as acceptable.

The arguments can be briefly summed up: (1) that different people looking at the same object have different sensations, and the sensations are therefore not really in the object but only imaginatively projected there; (2) that objects seem to have contradictory qualities and hence the qualities must be, not in the object, but in the mind; (3) that the qualities we discover are different from what we know on other grounds to be the nature of the objects and hence can not be in the objects at all.⁸ Now all these arguments are good as a refutation of "naïve realism" which supposes objects to be at all times just what they are seen at any one moment to be—though it may be doubted if the most naïve man-in-the-street ever held such a position. But none of them militates against the argument for the objectivity of sensations as set forth in this paper. (1) Different people looking at the same object of course have different sensations, which proves that the sense-quality is not in the object taken alone and absolutely, but which does not prove that the object may not have the various different qualities relatively to the different situations in which it stands to different organisms. Relativity is not subjectivity; and in these days of relativity, when even physicists talk in such terms, the old thoughtless identification of the relative and the subjective requires revision. If sensations are relative to medium and end-organ as well as to object, the con-

⁷ *E.g.*, in *Essays in Critical Realism*, it is said that psychology deals with "subjective data" (31), that the sphere of the psychologist is "the psychical as such" (208), that a sensation, apart from its reference, is but "a pure state of our sensibility" (234), that "perception is not direct" (103), *etc.* Cf. also pp. 11, 28, 164, 192, 197, 217, *et passim*.

⁸ For the most recent statement of these arguments in compact form, consult *Essays in Critical Realism*, pp. 8, 15, 133, 224, 226, *etc.*

ditions of observation would assist in determining what quality would be seen. Under identically the same circumstances the object has identically the same quality. (2) The contradictory qualities, being also a matter of diverse points of view, signify nothing in the way of subjectivity. For the contradictory qualities are not in the object taken alone. The trouble here seems to arise from considering qualities as distinct and separate entities, like a lot of marbles which small boys carry around in their pockets. The sense-qualities of objects are relative to the point of view. And unless it is contradictory to suppose that there is more than one point of view in the universe, it is hard to see why it is contradictory to suppose an object to have successively to the same organism or simultaneously to different organisms a number of different qualities. (3) The fact referred to in the third argument is not a point against the theory of this paper, but part of the position defended. But the inference from that fact betrays a *non sequitur*. Because an object does not have eternally and unchangeably a certain quality observed in sensation, is no reason why it may not have that quality in case of being related in a certain way to a certain perceiving organism. It is a long jump from the discovery that the qualities observed in sensation are not the qualities which the object has apart from sensation, to the conclusion that the qualities are not qualities of the object at all but "psychic states" in the mind. Before such a conclusion could be defended, one would have to find such a "mind" as could contain qualities, which kind of a "mind" is not revealed by experience; and even then, one would need some experimental evidence for the location of qualities there instead of somewhere else. No one has ever successfully essayed this task. Rather such a supposition is defined as an axiom and accepted as authentic before experience is examined, and experience is then made to fit into this scheme at any cost.

In addition to these arguments which are restated in various forms, there is an alleged metaphysical principle which is supposed to prove the subjectivity of sensations. Instead of going to experience to find out whether we can really see and touch objects, the advocates of subjectivism adduce an *a priori* proof against such direct contact between observer and object.⁹ Mind and matter are so regarded that contact between them is deemed impossible.

⁹ *E.g.*, Mr. R. W. Sellars said that the claim to have the object immediately present is "impossible," and his reason is that "it would involve the leaping of spatial and temporal barriers in an unnatural fashion" (*Essays in Critical Realism*, p. 200). The quite sufficient answer to Mr. Sellars and all the other critical realists who reject the contact of observer with object is contained in the wise words of Mr. Santayana in their own volume: "The standard of naturalness is nature itself" (p. 167).

The trouble here seems to be with the conception of cause. The assumption seems to have been made that one thing can not cause another thing unless we can understand *how* the act of causation takes place. But causation, however natural a matter, is not a logical procedure. A person who looked at the greenish-yellow gas called chlorin with its disagreeable odor and poisonous effect upon the lungs and then looked at the whitish metal called sodium which discolors so quickly as it oxidizes when exposed to the air, might never suspect that those two substances, combined in certain proportions, would give another substance indispensable to living organisms and delicious for the seasoning of food. We can discover certain facts which we can not account for; yet metaphysics should not be regarded as a process of accounting for the universe but as a statement in general terms of what the universe happens to be. Similarly we may be unable to explain why certain kinds of matter, organized in a certain way, make living beings and end-organs and nervous systems; and we may be unable to explain why under certain circumstances these living beings can perceive objects. We are entitled to seek explanation of these facts in the sense that we may search for the detailed analysis of the processes involved, but not in the sense that we may formulate a principle which will account for things being as they are instead of otherwise. However unrelated to logical processes they may be, natural processes are none the less real, *i.e.*, take place; they do not wait for the logician to justify their occurrence. Causation is not anything to be explained *en masse*, but to be accepted and to be used as an explanation of what happens to and around us. Nature is more resourceful than the mind of a rationalist. Antecedent intelligibility is not a measure of natural possibility. What is, is possible. If we *do* perceive objects, then we *can*. Metaphysicians should start with nature, not with axioms; and their principles should be generalizations from the facts, not regulations by which they, like traffic policemen for the universe, endeavor to determine the directions in which things must go.

Doubtless many advocates of the existence of "psychic states" would reject the false metaphysical axiom discussed in the preceding paragraph. But if they carry out that rejection and eliminate its implications from all their theories, what antecedent likelihood is there that objects have not "really" the qualities which they are found in experience to have, and that we do not, in spite of every indication, "really" come into immediate contact with objects? Thus the way is opened for a return to a naturalism which takes the universe at face-value, gives credit to whatever it finds

and seeks for as much more as it can discover, and recognizes the setting in which living, perceiving, and thinking go on. Naturalism in this sense is far from materialism;¹⁰ for it regards the material world as the "natural basis" which finds its "ideal fulfilment" in the achievement of the goods which the structure of reality makes possible.¹¹ And thus from the slime of the sea-bed may arise beings who sing songs, build cathedrals, erect shrines to the saints, and dream of the kingdom of God. But the full meaning of naturalism is too much to attempt to define in a closing paragraph. It is perhaps enough if something has been said to reinforce Plato's contention that in vision the eye becomes a seeing eye, and the object becomes a white object.

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TRUTH AS CORRESPONDENCE: A RE-DEFINITION

THE purpose of this article is to show that by an accurate objective definition of the concepts involved it is possible to define truth in terms of correspondence, and at the same time avoid the well-known dialectical difficulties of the theory of error. Many attempts along this line have been made, but they have proved abortive. The advocates of what Joachim calls the coherence theory have found them altogether too easy to puncture. Granting that a true statement is one that corresponds with facts, they say, how are we to deal with false statements? We can not claim that they correspond to nothing at all, for this would imply that they were meaningless, which is not the case. And we can not say that they correspond with the wrong facts, for how can we determine their legitimate reference? In spite of the seeming finality of such objections, the correspondence theory of truth still survives. And it survives because of its obvious scientific common sense. But to a really striking degree epistemology has failed to put it on a sound logical basis. Propositions, assumptions, and other strange and doubtful entities have been invented to mediate between judgment and reality, and they are all conspicuously futile.

The correct solution is not by means of any of these ingenuities. It is found by taking an objective point of view in regard to the knowledge situation, and the factors entering into it. Our funda-

¹⁰ The word naturalism has not in this paper at all the same meaning as, for example, in Professor Perry's *Present Philosophical Tendencies*.

¹¹ These phrases are borrowed from Santayana's *Life of Reason*.